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10/627,230	07/24/2003	Edwin Lyle Hudson	eLCOS0302	2430

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EXAMINER
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GOKHALE, SAMEER K

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/627,230	<b>Applicant(s)</b> HUDSON, EDWIN LYLE	
	<b>Examiner</b> Sameer K. Gokhale	<b>Art Unit</b> 2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. The specific objections are as follows:

- a. The "backplane", as recited in claims 3, 17-22, and 27, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
- b. The "two current sources", as recited in claims 7 and 14, must be shown or the feature(s) cancelled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claims 13 and 14 are objected to because of the following informalities: On line 11 of claim 13, and line 19 of claim 14, the term "either-or-both" is used as a single term with dashes, which is not clear and specific. The phrase "either or both" should be used as separate words without dashes.

3. Claim 5 is objected to under 37 CFR 1.75(a) because although this claim meets the requirement 112/2d, i.e., the metes and bounds are determinable, however "said temperature sensing means further comprising voltage controlled oscillator" should be changed to "means for generating an output frequency is a voltage controlled oscillator."

It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims, to take into consideration these editorial situations and make changes necessary.

4. Claim 27 is objected to because of the following informalities: On line 16 the word "leas" appears to be misspelled. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 10-11,13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1) Claim 10 recites the limitation "dividing-by-n" (/n) circuit" on line 25 of the claim. The term "n" is not properly defined in the claim.

2) Claim 11 recites the limitation "a dividing-by-n (/n) circuit for modifying a frequency output from said VCO with a selectable value of n." The term "n" is not properly defined in the claim.

3) Claim 13 recites the limitation "...said temperature sensing means further comprising at least two diodes of different sizes having said multiplexing circuit connected thereto..." on lines 8-9. Here, it is unclear what word the term "having" is modifying because it immediately follows the word "sizes".

4) Claim 14 recites the limitation "...said temperature sensing means further comprising at least two current sources for providing two different currents having said multiplexing circuit connected thereto..." on lines 15-17. Here, it is unclear

what word the term "having" is modifying because it immediately follows the word "currents".

5) Claim 15 recites the limitation "said VCO" on line 24. There is insufficient antecedent basis for this limitation in the claim.

6) Claim 16 recites the limitation "a dividing-by-n (/n) circuit for modifying a frequency output from said VCO with a selectable value of n having said multiplexing circuit connected thereto whereby said controller controlling said configuration by selecting a value of said n." The term "n" is indefinite in the claim.

Claim 16 also recites the limitation "said VCO" on line 4. There is insufficient antecedent basis for this limitation in the claim.

7) Claim 27 recites the phrase "a same local temperature" on line 17. This phrase is unclear because it is not clear what the local temperature is supposed to be the same as in the claim.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1,4-6, and 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogino (US 4,923,285).

Regarding claim 1, Ogino teaches a display system comprising: a temperature sensing circuit (Fig. 15(b), the differential amplifier circuit) comprising a current source (Fig. 15(b), item Q3, see col. 11, lines 36-37) connected to a temperature sensing diode (Fig. 15(b), labeled 'thermo detector', see col. 11, lines 7-8) for providing an input to a voltage controlled oscillator (VCO) (see col. 11, lines 10-13) for generating a frequency output corresponding to said input voltage as a function of a temperature measurement by said temperature sensing diode (see col. 11, lines 23-32).

Regarding claim 4, Ogino teaches a display system comprising: a temperature sensing means (see col. 11, lines 7-8) including a means for generating an output frequency corresponding to a temperature measurement (see col. 11, lines 23-32).

Regarding claim 5, Ogino teaches a display system of claim 4 wherein the temperature sensing means further comprising voltage controlled oscillator (VCO) for generating said output frequency (see col. 11, lines 23-32).

Regarding claim 6, Ogino teaches a display system of wherein there is a temperature sensing means further comprising a diode (col. 11, lines 7-8) for passing a current (it is inherent that the diode passes a current) for providing an input voltage (Fig. 15(c), where  $V_f$  is the voltage from the diode) to said VCO for generating said output frequency corresponding said temperature measurement (see col. 11, lines 14-33,

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where  $V_f$  from the diode affects the potential at point A, which in turn affects the VCO resonant frequency).

Regarding claim 23, Ogino teaches a method for measuring a temperature in a display system comprising: applying an independent adjustable voltage source (see col. 11, line 14-16, here the forward voltage of the diode is the voltage source, which is independent and can be adjustable based on temperature) on a voltage controlled oscillator (VCO) to determine a functional correlation between a frequency of the VCO and an input voltage to the VCO. (see col. 11, lines 14-33, where  $V_f$  from the diode affects the potential at point A, which in turn affects the VCO resonant frequency).

Regarding claim 24, Ogino teaches a method comprising: applying a temperature sensing voltage from a temperature sensing diode (see col. 11, line 14-16, here the forward voltage of the diode is the temperature sensing voltage) to said VCO to generate a temperature corresponding output frequency from the VCO (see col. 11, lines 14-33, where  $V_f$  from the diode affects the potential at point A, which in turn affects the VCO resonant frequency).

Regarding claim 25, Ogino teaches a method comprising: using said frequency-voltage functional correlation and said output frequency of said VCO to determine said temperature sensing voltage across the temperature sensing diode (Fig. 15(c) and Fig. 15(d), see col. 11, lines 14-33, it is inherent that the voltage can be extracted from the frequency given the relationships disclosed in the two graphs).

Regarding claim 26, Ogino teaches a method comprising: determining a temperature measurement from said temperature sensing voltage across said



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temperature sensing diode (Fig. 15(c), the graph discloses the relationship between voltage and the temperature, therefore it is inherent that the temperature can be extracted by measuring the diode's forward voltage).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino in view of Matsuyama (US 5,969,512).

Regarding claim 2, Ogino teaches a display system with all the limitations of claim 1 as discussed above. However, Ogino does not teach a resistor digital-to-analog converter (RDAC) for digitally controlling a voltage inputted to said VCO in place of the temperature sensing diode.

However, Matsuyama teaches an output voltage variable power circuit comprising of a potentiometer with a detecting voltage that changes with the ambient temperature (col. 7, lines 14-18, where a potentiometer is a type of resistor digital-to-analog converter).

Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Matsuyama in the teaching of Ogino to replace the temperature sensing diode with a RDAC in order to

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achieve a higher linear relationship between the digital input and the RDAC output voltage.

Regarding claim 9, Ogino teaches a display system with all the limitations of claim 4 as discussed above. However, Ogino does not teach a resistor digital-to-analog converter (RDAC) for digitally controlling a voltage inputted to said VCO in place of the temperature sensing diode.

However, Matsuyama teaches an output voltage variable power circuit comprising of a potentiometer with a detecting voltage that changes with the ambient temperature (col. 7, lines 14-18, where a potentiometer is a type of resistor digital-to-analog converter).

Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Matsuyama in the teaching of Ogino to replace the temperature sensing diode with a RDAC in order to achieve a higher linear relationship between the digital input and the RDAC output voltage.

11. Claims 3, 17, 18, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino in view of Krusius et. al. (US 6,567,138)(hereafter, "Krusius").

Regarding claim 3, Ogino teaches a display system with all the limitations of claim 1 as discussed above. However, Ogino does not teach a display system wherein a temperature sensing circuit is disposed on a backplane of said display system.

However, Krusius teaches a method for assembling a tiled, flat-panel, microdisplay array where the temperature sensors can be designed and fabricated into the silicon tile back planes (col. 10, lines 46-48).

Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Krusius in the teaching of Ogino to dispose the temperature sensing circuit on a backplane of a display system in order to keep the circuit close to the essential area of the display that it needs to measure the temperature from.

Regarding claim 17, Ogino teaches a method for measuring a temperature in a display system comprising: a temperature sensing circuit (Fig. 15(b), the differential amplifier circuit) for generating a frequency output corresponding to a temperature measurement (see col. 11, lines 23-32). However, Ogino does not teach disposing the temperature sensing circuit on a backplane.

However, Krusius teaches a method for assembling a tiled, flat-panel, microdisplay array where the temperature sensors can be designed and fabricated into the silicon tile back planes (col. 10, lines 46-48).

Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Krusius in the teaching of Ogino to dispose the temperature sensing circuit on a backplane of a display system in order to keep the circuit close to the essential area of the display that it needs to measure the temperature from.

Regarding claim 18, Ogino in view of Krusius teach the limitations of claim 17 as discussed above, and Ogino further teaches a diode temperature sensing means (Fig. 15(b), labeled 'thermo detector', see col. 11, lines 7-8). However, Ogino does not teach disposing the diode temperature sensing means on said backplane.

However, Krusius does teach disposing a diode temperature sensing means on a backplane (col. 10, lines 46-51).

Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Krusius in the teaching of Ogino to dispose a diode temperature sensing means on a backplane of a display system in order to keep the diode temperature sensing means close to the essential area of the display that it needs to measure the temperature from.

Regarding claim 20, Ogino in view of Krusius teach the limitations of claim 17 as discussed above, and Ogino further teaches a current source (Fig. 15(b), item Q3, see col. 11, lines 36-37) and a means for converting a measured current by said temperature sensing circuit to said frequency corresponding to said temperature measurement (see col. 11, lines 14-32, it is inherent that the current source provides a current that is directly related to the voltage across the thermo detecting diode, and therefore the VCO is converting a measured a current to a frequency corresponding to a temperature measurement).

Regarding claim 21, Ogino in view of Krusius teach the limitations of claim 17 as discussed above, and Ogino further teaches a current source (Fig. 15(b), item Q3, see col. 11, lines 36-37) and a voltage control oscillator (VCO)(col. 11, lines 10-13) for

converting a measured current by said temperature sensing circuit to said frequency corresponding to said temperature measurement (see col. 11, lines 14-32, it is inherent that the current source provides a current that is directly related to the voltage across the thermo detecting diode, and therefore the VCO is converting a measured a current to a frequency corresponding to a temperature measurement).

Regarding claim 22, Ogino in view of Krusius teach the limitations of claim 17 as discussed above, and Krusius further teaches disposing the temperature sensing circuit on a backplane of a liquid crystal microdisplay system (col. 6, lines 12-14).

12. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino in view of Nakamura et. al. (US 6,831,626) (hereafter, "Nakamura").

Regarding claim 7, Ogino teaches a display system with all the limitations of claim 4 as discussed above. However, Ogino does not teach a temperature sensing circuit comprising at least two diodes of different sizes.

However, Nakamura does teach a temperature sensing circuit (Fig. 1) comprising at least two diodes of different sizes (Fig. 1, any two of the diodes D11 through D1n or D21 through D2m, see also col. 8, lines 37-42, where the different element areas of the diodes indicates diodes of different sizes).

Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Nakamura in the teaching of Ogino to use a temperature sensing circuit with two diodes of different sizes to allow the ability to cross-calibrate the voltage across the diodes.

Regarding claim 8, Ogino teaches a display system with all the limitations of claim 4 as discussed above. However, Ogino does not teach a temperature sensing circuit comprising at least two current sources for providing two different currents.

However, Nakamura does teach a temperature sensing circuit (Fig. 1) comprising two current sources (Fig. 1, items F1 and F2) for providing two different currents (see col. 5, lines 64-66).

Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Nakamura in the teaching of Ogino to use a temperature sensing circuit with two different current sources to provide current for two parallel sets of diodes (the use of such diodes was obvious as discussed for claim 7 above).

13. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino in view of Brown et. al. (US 5,144,418) (hereafter, "Brown").

Regarding claim 10, Ogino teaches a display system with all the limitations of claim 4 as discussed above. However, Ogino does not teach a dividing-by-n ( $/n$ ) circuit for modifying a frequency output from said VCO.

However, Brown does teach a dividing-by-n ( $/n$ ) circuit for modifying a frequency output from a VCO (Fig.1, item 40, where RF Keyed Oscillator 50 is the VCO).

Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Brown in the teaching of

Ogino to add a dividing-by-n circuit to the output of the VCO in order to output a smaller frequency.

Regarding claim 11, Ogino teaches a display system with all the limitations of claim 4 as discussed above. However, Ogino does not teach a dividing-by-n (/n) circuit for modifying a frequency output from said VCO with a selectable value of n.

However, Brown does teach a dividing-by-n (/n) circuit for modifying a frequency output from said VCO with a selectable value of n ((Fig. 1, item 40, see col. 6, lines 22-29).

Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Brown in the teaching of Ogino to add a dividing-by-n circuit to the output of the VCO with a selectable value of n in order to output selectable range of smaller frequencies.

14. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino in view of Lippman et. al. (US 5,936,603) (hereafter, "Lippman").

Regarding claim 12, Ogino teaches a display system with all the limitations of claim 4 as discussed above. However, Ogino does not teach a multiplexing circuit controlled by a controller for controlling a configuration of a temperature sensing means.

However, Lippman does teach a multiplexing circuit (Fig. 4, item 92, see col. 4, line 32) controlled by a controller (Fig. 4, item 82, see col. 4, line 16) for controlling a configuration of a temperature sensing means (see col. 4, lines 13-24, here controller 82 is controlling the multiplexer 92 as part of the temperature sensing means 58).

Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Lippman in the teaching of Ogino to have a temperatures sensing circuit with a multiplexer and a controller to allow for variable configurations of the temperature sensing circuit.

Regarding claim 15, Ogino in view of Lippman teaches a display system with all the limitations of claim 12 as discussed above. Lippman further teaches a resistor digital-to-analog converter (RDAC) (Fig. 4, item 88) digitally controlling a voltage inputted to a VCO (Fig. 4, item 106) having said multiplexing circuit (Fig. 4, item 92) connected thereto whereby said controller (Fig. 4, item 82) controlling said configuration by selecting an input from said RDAC to said VCO (See col. 4, lines 27-31, here the controller 82 controls the RDAC 88 which ultimately connects to the output of the VCO 106).

15. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino in view of Lippman as applied to claim 12 above, and further in view of Brown.

Ogino in view of Lippman teach the limitations of claim 12 as discussed above. Lippman further teaches a dividing-by-n ( $/n$ ) circuit (Fig. 4, item 108) for modifying a frequency output from a VCO (Fig. 4, item 106) having said multiplexing circuit (Fig. 4, item 92) connected thereto.

However, Ogino in view of Lippman does not teach a controller controlling a configuration by selecting a value of said n.



However, Brown does teach a dividing-by-n ( $/n$ ) circuit (Fig. 1, item 40) for modifying a frequency output from a VCO (Fig. 1, item 50) with a selectable value of n ((Fig. 1, item 40, see col. 6, lines 22-29) and a controller (Fig. 1, item 30) for selecting a value of said n (see col. 6, lines 32-35).

Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Brown in the teaching of Ogino in view of Lippman to add a dividing-by-n circuit with a selectable value of n to the output of the VCO with a selectable value of n in order to output selectable range of smaller frequencies, and additionally to use a controller that can select the value of n for the dividing-by-n circuit.

16. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino in view of Krusius as applied to claim 17 above, and further in view of Nakamura.

Ogino in view of Krusius teach the limitations of claim 17 as discussed above. However, Ogino in view of Krusius does not teach a step of using two diode temperature sensing means.

However, Nakamura does teach a step of using two diode temperature sensing means (Fig. 1, any two of the diodes D11 through D1n or D21 through D2m).

Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Nakamura in the teaching of Ogino in view of Krusius in order to dispose on a backplane a temperature sensing

circuit with two diodes to utilize a parallel diode method of sensing temperature on a display.

17. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Krusius.

Nakamura teaches a display system (col. 8, lines 57-59) comprising a temperature sensing circuit (Fig. 1, see col. 4, lines 27-29) wherein said temperature sensing circuit comprises at least two diodes for measuring a same local temperature on said backplane (Fig. 1, items D11 - D1n or D21 -D2n, see col. 6, lines 27-30).

However, Nakamura does not teach a disposing said temperature sensing circuit on a backplane.

However, Krusius does teach disposing a diode temperature sensing means on a backplane (col. 10, lines 46-51).

Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention was made to incorporate the teaching of Krusius in the teaching of Nakamura to keep the diode temperature sensing means close to the essential area of the display that it needs to measure the temperature from.

### ***Conclusion***


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameer K. Gokhale whose telephone number is (571) 272-5553. The examiner can normally be reached on M-F 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKG  
October 24, 2005

Sameer Gokhale  
Examiner  
Art Unit 2673

  
JIMMY NGUYEN  
PRIMARY EXAMINER